

# Natural Gas STAR Online Reporting

**Annual Report 2009**

**Production Sector**

OMB Control No. 2060-0328  
Expires 07/31/2011



## Company Information

Company Name: **ConocoPhillips**

Gas STAR Contact: **Alena Jonas**

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Company Information Updated: No

## Activities Reported

**BMP1: Yes BMP2: No BMP3: Yes**

Total Methane Emission Reductions Reported This Year: **2,338,570**

Previous Years' Activities Reported: **No**

## Period Covered by Report

From: **01/01/2009**

To: **12/31/2009**

☒ I hereby certify the accuracy of the data contained in this report.

**Additional Comments**

Received 4/30/10  
Entered into iStar - 8/9/10  
QA/QC 8/9/2009 DF

June 15, 2010

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BMP1: Identify and Replace High-Bleed Pneumatic Devices

Current Year Activities

A. Facility/location identifier information:

Mid-Continent Business Unit

B. Facility Summary

Number of devices replaced this reporting period: 81 devices  
Percent of system now equipped with low/no-bleed units: \_\_\_\_\_ %

C. Cost Summary

Estimated cost per replacement (including equipment and labor): \$ \_\_\_\_\_

D. Methane Emissions Reduction

Method Used: Other

Data Source: Not Applicable

Methane Emissions Reduction: 21,412 Mcf/year ✓

manufacturer's basis-avg:

Invalco Specifications for Model CTU-415:

Supply Pressure

20 to 30 psi

Supply Connection

1/4" FNPT

Output Connection

1/4" FNPT

Gas Consumption

30 SCFH average.

Assuming 1 snap per minute."

E. Are these emissions reductions a one-year reduction or a multi-year reduction?

One-year

✓ Multi-year

If Multi-year: ✓ Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration (BMP 1 has a sunset period of 7 years).

Partner will report this activity annually up to allowed sunset date.

F. Total Value of Gas Saved

Value of Gas Saved: \$ 64,236

\$ / Mcf used: \$ 3.00

G. Planned Future Activities

Number of high-bleed devices to be replaced next year: 2,000 devices

June 15, 2010

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## Previous Years' Activities

Year	Number of Devices Replaced	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

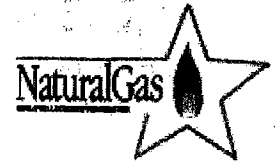
\* Total cost of replacements (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

**Current Year Activities**

**A. Facility/location identifier information:**

San Juan Business Unit

**B. Description of PRO**

Please specify the technology or practice that was implemented:

Artificial lift: install smart lift automated systems on gas wells (10 years)

Please describe how your company implemented this PRO:

Optimization of existing plunger lifts

**C. Level of Implementation**

Number of units installed: 10 units

**D. Methane Emissions Reduction**

Methane Emissions Reduction: 2,000 Mcf/year ✓

Basis for the emissions reduction estimate: Other

Based on field tests

**E. Are these emissions reductions a one-year reduction or a multi-year reduction?**

✓ One-year

Multi-year

**If Multi-year:**

Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.

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**F. Cost Summary**

Estimated cost of implementing the PRO (including equipment and labor): \$ \_\_\_\_\_

**G. Total Value of Gas Saved**

Value of Gas Saved: \$ 6,000

\$ / Mcf used: \$ 3.00

**H. Planned Future Activities**

To what extent do you expect to implement this PRO next year?: **Plan to continue to implement optimization of plunger lifts**

**Previous Years' Activities**

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

\* Total cost of practice/activity (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

**Current Year Activities**

**A. Facility/location identifier information:**

**Gulf Coast Business Unit**

**B. Description of PRO**

Please specify the technology or practice that was implemented:

**DI&M: leak detection using IR camera/optical imaging**

Please describe how your company implemented this PRO:

**Facility surveys**

**C. Level of Implementation**

**Other: 3 areas surveyed**

**D. Methane Emissions Reduction**

Methane Emissions Reduction: **99,376 Mcf/year** ✓

Basis for the emissions reduction estimate: **Other**

Estimated based on previous experience

**E. Are these emissions reductions a one-year reduction or a multi-year reduction?**

✓ One-year

Multi-year

**If Multi-year:**

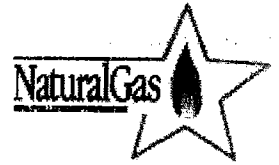
Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.

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**F. Cost Summary**

Estimated cost of implementing the PRO (including equipment and labor): \$ \_\_\_\_\_

**G. Total Value of Gas Saved**

Value of Gas Saved: \$ 298,128

\$ / Mcf used: \$ 3.00

**H. Planned Future Activities**

To what extent do you expect to implement this PRO next year?: **Plan to continue utilizing FLIR technology in all Lower 48 business units**

**Previous Years' Activities**

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

\* Total cost of practice/activity (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

**Current Year Activities**

**A. Facility/location identifier information:**

**Gulf Coast Business Unit**

**B. Description of PRO**

Please specify the technology or practice that was implemented:

**Install electric starters (10 years)**

Please describe how your company implemented this PRO:

**Install electric starters**

**C. Level of Implementation**

**Number of units installed: 12 units**

**D. Methane Emissions Reduction**

**Methane Emissions Reduction: 240 Mcf/year**



Basis for the emissions reduction estimate: \_\_\_\_\_

**E. Are these emissions reductions a one-year reduction or a multi-year reduction?**

One-year

☒ Multi-year

**If Multi-year:**

- ☒ Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.

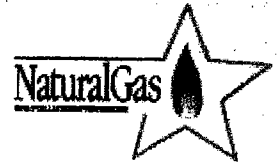


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#### F. Cost Summary

Estimated cost of implementing the PRO (including equipment and labor): \$ \_\_\_\_\_

#### G. Total Value of Gas Saved

Value of Gas Saved: \$ 720

\$ / Mcf used: \$ 3.00

#### H. Planned Future Activities

To what extent do you expect to implement this PRO next year?: \_\_\_\_\_

#### Previous Years' Activities

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

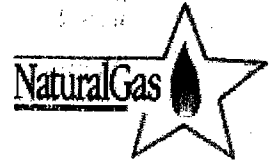
\* Total cost of practice/activity (including equipment and labor)

#### Additional Comments

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BMP3: Partner Reported Opportunities (PROs)

**Current Year Activities**

**A. Facility/location identifier information:**

**Gulf Coast Business Unit**

**B. Description of PRO**

Please specify the technology or practice that was implemented:

**Install vapor recovery units (VRUs) (10 years)**

Please describe how your company implemented this PRO:

**Installation of one Vapor Recovery unit at tank battery**

**C. Level of Implementation**

**Number of units installed: 1 units**

**D. Methane Emissions Reduction**

**Methane Emissions Reduction: 63,174 Mcf/year** ✓

**Basis for the emissions reduction estimate: Calculation using manufacturer specifications**

**E. Are these emissions reductions a one-year reduction or a multi-year reduction?**

One-year

✓ Multi-year

**If Multi-year:**

- ✓ Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.

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**F. Cost Summary**

Estimated cost of implementing the PRO (including equipment and labor): \$ \_\_\_\_\_

**G. Total Value of Gas Saved**

Value of Gas Saved: \$ 189,522

\$ / Mcf used: \$ 3.00

**H. Planned Future Activities**

To what extent do you expect to implement this PRO next year?: \_\_\_\_\_

**Previous Years' Activities**

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

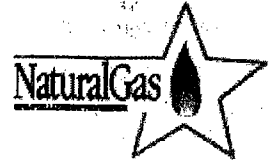
\* Total cost of practice/activity (including equipment and labor)

**Additional Comments**

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BMP3: Partner Reported Opportunities (PROs)

**Current Year Activities**

**A. Facility/location identifier information:**

**Gulf Coast Business Unit**

**B. Description of PRO**

Please specify the technology or practice that was implemented:

**Other (Please specify)- Install Solar Powered Chemical Injection Pumps**

Please describe how your company implemented this PRO:

**installation of solar powered pumps**

**C. Level of Implementation**

**Number of units installed: 200 units**

**D. Methane Emissions Reduction**

**Methane Emissions Reduction: 95,463 Mcf/year** ✓

**Basis for the emissions reduction estimate: Calculation using manufacturer specifications**

**E. Are these emissions reductions a one-year reduction or a multi-year reduction?**

One-year

✓ Multi-year

**If Multi-year:**

- ✓ Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.

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**F. Cost Summary**

Estimated cost of implementing the PRO (including equipment and labor): \$ \_\_\_\_\_

**G. Total Value of Gas Saved**

Value of Gas Saved: **\$ 668,241**

\$ / Mcf used: **\$ 7.00**

**H. Planned Future Activities**

To what extent do you expect to implement this PRO next year?: \_\_\_\_\_

**Previous Years' Activities**

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

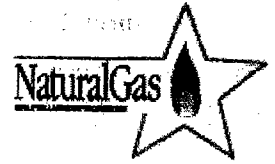
\* Total cost of practice/activity (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

Current Year Activities

A. Facility/location identifier information:

Gulf Coast Business Unit

B. Description of PRO

Please specify the technology or practice that was implemented:

Other (Please specify)-Install Blowcase Vessels

Please describe how your company implemented this PRO:

Install equipment that pulls off liquids and moves them to tankage

C. Level of Implementation

Number of units installed: 16 units

D. Methane Emissions Reduction

Methane Emissions Reduction: 7,636 Mcf/year

Basis for the emissions reduction estimate: Calculation using manufacturer specifications

10 yrs.

E. Are these emissions reductions a one-year reduction or a multi-year reduction?

One-year

✓ Multi-year

If Multi-year:

- ✓ Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.

~~Handwritten text~~

New PRO:

- Route gas to compressor suction/blowcase vessel

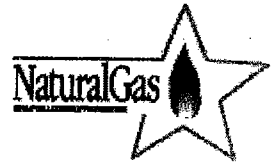
✓

✓

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**F. Cost Summary**

Estimated cost of implementing the PRO (including equipment and labor): \$ \_\_\_\_\_

**G. Total Value of Gas Saved**

Value of Gas Saved: \$ 53,452 ✓

\$ / Mcf used: \$ 7.00

**H. Planned Future Activities**

To what extent do you expect to implement this PRO next year?: \_\_\_\_\_

**Previous Years' Activities**

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

\* Total cost of practice/activity (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

Current Year Activities

A. Facility/location identifier information:

Mid-Continent Business Unit

B. Description of PRO

Please specify the technology or practice that was implemented:

Other (Please specify)-Install Solar Powered Chemical Injection Pumps

Please describe how your company implemented this PRO:

• replace gas pneumatic pumps with solar-powered pumps

C. Level of Implementation

Number of units installed: 175 units

*Per email from Alena, this should be 13,306 Mcf.*

D. Methane Emissions Reduction

Methane Emissions Reduction: ~~4,857~~ Mcf/year

Basis for the emissions reduction estimate: Calculation using manufacturer specifications

E. Are these emissions reductions a one-year reduction or a multi-year reduction?

One-year

☒ Multi-year

If Multi-year:

☒ Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

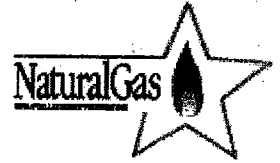
Partner will report this activity annually up to allowed sunset date.



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**F. Cost Summary**

Estimated cost of implementing the PRO (including equipment and labor): \$ \_\_\_\_\_

**G. Total Value of Gas Saved**

Value of Gas Saved: \$ 33,999

\$ / Mcf used: \$ 7.00

**H. Planned Future Activities**

To what extent do you expect to implement this PRO next year?: **Plan to continue this practice**

**Previous Years' Activities**

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

\* Total cost of practice/activity (including equipment and labor)

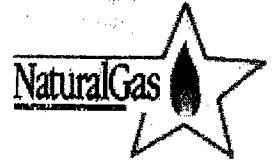
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BMP3: Partner Reported Opportunities (PROs)

Current Year Activities

A. Facility/location identifier information:

San Juan Business Unit

B. Description of PRO

Please specify the technology or practice that was implemented:

Other (Please specify)-Install Solar Powered Chemical Injection Pumps

Please describe how your company implemented this PRO:

Replace gas pneumatic pumps with solar-powered

C. Level of Implementation

Number of units installed: 429 units

D. Methane Emissions Reduction

Methane Emissions Reduction: 39,039 Mcf/year ✓

Basis for the emissions reduction estimate: Calculation using manufacturer specifications

E. Are these emissions reductions a one-year reduction or a multi-year reduction?

One-year

✓ Multi-year

If Multi-year:

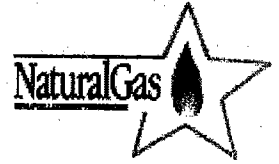
- ✓ Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.

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**F. Cost Summary**

Estimated cost of implementing the PRO (including equipment and labor): \$ \_\_\_\_\_

**G. Total Value of Gas Saved**

Value of Gas Saved: \$ 117,117

\$ / Mcf used: \$ 3.00

**H. Planned Future Activities**

To what extent do you expect to implement this PRO next year?: **Plan to continue practice in future**

**Previous Years' Activities**

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

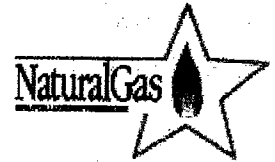
\* Total cost of practice/activity (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

Current Year Activities

A. Facility/location identifier information:

Gulf Coast Business Unit

B. Description of PRO

Please specify the technology or practice that was implemented:

Other (Please specify)-Solar powered downhole injection pumps

Please describe how your company implemented this PRO:

TXAM Downhole Injection Pumps (solar)

C. Level of Implementation

Number of units installed: 21 units

D. Methane Emissions Reduction

Methane Emissions Reduction: 153,428 Mcf/year ✓

Basis for the emissions reduction estimate: Calculation using manufacturer specifications

E. Are these emissions reductions a one-year reduction or a multi-year reduction?

One-year

✓ Multi-year

If Multi-year:

✓ Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.

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**F. Cost Summary**

Estimated cost of implementing the PRO (including equipment and labor): \$ \_\_\_\_\_

**G. Total Value of Gas Saved**

Value of Gas Saved: \$ 1,073,996

\$ / Mcf used: \$ 7.00

**H. Planned Future Activities**

To what extent do you expect to implement this PRO next year?: \_\_\_\_\_

**Previous Years' Activities**

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

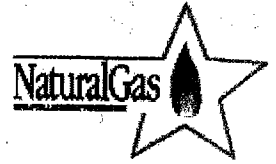
\* Total cost of practice/activity (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

Current Year Activities

A. Facility/location identifier information:

Mid-Continent Business Unit ✓

B. Description of PRO

Please specify the technology or practice that was implemented:

Other (Please specify)-Temperature Activated Pump Controls

Please describe how your company implemented this PRO:

Install temperature activated pump controls

*Permanently*

*Install controllers on gas-assisted methanol pumps.*

C. Level of Implementation

Number of units installed: 10 units ✓

*10 years*

D. Methane Emissions Reduction

Methane Emissions Reduction: 639 Mcf/year ✓

Basis for the emissions reduction estimate: Calculation using manufacturer specifications

E. Are these emissions reductions a one-year reduction or a multi-year reduction?

One-year

✓ Multi-year

If Multi-year:

- ✓ Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.

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#### F. Cost Summary

Estimated cost of implementing the PRO (including equipment and labor): \$ \_\_\_\_\_

#### G. Total Value of Gas Saved

Value of Gas Saved: \$ 1,917 ✓

\$ / Mcf used: \$ 3.00

#### H. Planned Future Activities

To what extent do you expect to implement this PRO next year?: \_\_\_\_\_

#### Previous Years' Activities

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

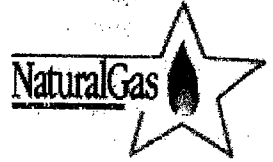
\* Total cost of practice/activity (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

**Current Year Activities**

**A. Facility/location identifier information:**

**San Juan Business Unit**

**B. Description of PRO**

Please specify the technology or practice that was implemented:

**Perform reduced emissions completions**

Please describe how your company implemented this PRO:

**57 completions done using closed loop system;  
303 flowbacks done using reduced-venting process**

**C. Level of Implementation**

**Number of units installed: 360 units**

**D. Methane Emissions Reduction**

Methane Emissions Reduction: **1,721,267 Mcf/year** ✓

Basis for the emissions reduction estimate: **Actual field measurement**

**E. Are these emissions reductions a one-year reduction or a multi-year reduction?**

✓ One-year

Multi-year

**If Multi-year:**

Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.



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**F. Cost Summary**

Estimated cost of implementing the PRO (including equipment and labor): \$ \_\_\_\_\_

**G. Total Value of Gas Saved**

Value of Gas Saved: \$ 5,163,801

\$ / Mcf used: \$ 3.00

**H. Planned Future Activities**

To what extent do you expect to implement this PRO next year?: **Continue closed loop completions and reduced time flowbacks next year**

**Previous Years' Activities**

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

\* Total cost of practice/activity (including equipment and labor)

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BMP3: Partner Reported Opportunities (PROs)

**Current Year Activities**

**A. Facility/location identifier information:**

**Gulf Coast Business Unit**

**B. Description of PRO**

Please specify the technology or practice that was implemented:

**Perform reduced emissions completions**

Please describe how your company implemented this PRO:

**Use closed-loop process for well completions in GCBU**

**C. Level of Implementation**

**Number of units installed: 65 units**

**D. Methane Emissions Reduction**

Methane Emissions Reduction: **130,039 Mcf/year** ✓

Basis for the emissions reduction estimate: **Actual field measurement**

**E. Are these emissions reductions a one-year reduction or a multi-year reduction?**

✓ One-year

Multi-year

**If Multi-year:**

Partner will report this activity once and let EPA automatically calculate future emission reductions based on sunset date duration.

Partner will report this activity annually up to allowed sunset date.

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### F. Cost Summary

Estimated cost of implementing the PRO (including equipment and labor): \$ \_\_\_\_\_

### G. Total Value of Gas Saved

Value of Gas Saved: \$ 390,117

\$ / Mcf used: \$ 3.00

### H. Planned Future Activities

To what extent do you expect to implement this PRO next year?: Will continue to utilize this process in GCBU

### Previous Years' Activities

Year	Frequency of practice/activity or # of Installations	Total Cost * (\$)	Estimated Reductions (Mcf/Yr)	Value of Gas Saved (\$)

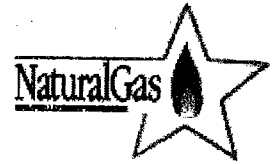
\* Total cost of practice/activity (including equipment and labor)

Additional Comments

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**Additional Accomplishments**